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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 997,673	11 29 2001	Mou-Chung Ngai	PG16044P0231US	4596

1942 7590 05 01 2002

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EXAMINER

PIERCE, JEREMY R

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 05 01 2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,673

Applicant(s)

NGAI, MOU-CHUNG

Examiner

Jeremy R. Pierce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 8, lines 11-12, it is stated a "polymeric binder coating was applied to the surface of layer 3". However, there exists no layer labeled with a "3" in Figure 1.

Appropriate correction is required.

Claim Objections

2. Claims 10 and 13 are objected to because of the following informalities: The Applicant claims the second outer layer to comprise PET fibrous material. The Examiner suggests citing the limitation as "polyethylene terephthalate" in order to clarify the abbreviation. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 cites a first outer layer exhibiting a relatively soft, smooth surface texture and a second outer layer exhibiting a relatively abrasive surface texture. This language

is indefinite. What is the first layer relatively soft compared to? What is the second layer relatively abrasive compared to? Practically any nonwoven wipe material will have a degree of softness and a separate degree of abrasiveness. Because of the degree of relativity used to define the characteristics of the wipe, no set structure can be defined.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

6. Claims 1, 11, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Welch et al. (U.S. Patent No. 6,022,818).

Welch et al. disclose a hydroentangled nonwoven fabric formed from two different fiber sources (column 2, lines 34-37). The two fiber sources create two different surfaces in the nonwoven composite. One surface is made of matrix fibers, such as polyester (column 2, line 51), which inherently would have a more abrasive texture. The other surface is made of absorbent fibers, such as cellulosic fibers and rayon (column 4, lines 38-40), which inherently would exhibit a softer surface texture. With regard to claim 11, a second layer of synthetic matrix fibers can be added to the

first layer of matrix fibers, thus making the first layer an intermediate layer. With regard to claim 15, apertures are formed during the hydroentangling process (column 8, lines 23-27).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Welch et al.

Welch et al. disclose the fabric can be dyed (column 9, lines 23-30). Welch et al. do not disclose the two layers to be different colors. However, modifying the fabric material so that the two surfaces would have different colors is a simple matter of design choice. It would have been obvious to one skilled in the art to dye only one fabric layer in order to create a composite having two surfaces with different colors, thus making the identification of the materially different layers easier.

9. Claims 1-3 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenway (U.S. Patent No. 4,753,839).

Greenway discloses a nonwoven fabric, made of at least one layer, subjected to hydroentanglement (column 2, lines 30-34). Greenway does not disclose specific two layer embodiments in the invention. However, Greenway does state that multiple layers

of various combinations of blends of fibers may be used to give variations of the fabric (column 3, lines 50-55). Additionally, Greenway also discloses four different possible layers that can be blended together, including a blend of 85% rayon with 15% polyester, 50% rayon with 50% polyester, 100% cellulosic, or 100% thermoplastic. It would have been obvious to one skilled in the art to combine one layer of 100% rayon with another layer of 50% rayon with 50% polyester in order to form a hydroentangled nonwoven with the feel and abrasion resistant properties of the respective layers, as is suggested to be done by Greenway. With regard to claims 2 and 3, the practice of dyeing fabric, or using dyed fabric is common in the art of fabric making. It would have been obvious to one skilled in the art to modify the fabric by dyeing a layer or using dyed fibers for a layer in order to be able to easily identify the two different layers and to make a composite nonwoven with better aesthetics.

10. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horn (U.S. Patent No. 5,302,446).

Horn teaches a two-sided skin care wipe material having different textures on each side, where one side is soft and the other side is rougher for scrubbing (column 3, lines 21-27). Horn teaches that the individual layers are formed through hydroentanglement (column 4, line 44), but fails to disclose the composite two-ply fabric to be formed by hydroentanglement. It would have been obvious to one skilled in the art to hydroentangle the two separate nonwoven layers in order to provide a fabric material with improved bonding between the two layers. With regard to claims 2 and 3, the practice of dyeing fabric, or using dyed fabric is common in the art of fabric making.

It would have been obvious to one skilled in the art to modify the fabric by dyeing a layer or using dyed fibers for a layer in order to be able to easily identify the two different layers of the skin wipe.

11. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenway or Welch et al. in view of McDonell et al. (U.S. Patent No. 5,282,900).

Neither Greenway nor Welch et al. teach the use of an abrasive binder coating in the nonwoven fabric. McDonell et al. teach that nonwoven fabric material can be made more abrasive with a binder precursor, and the binder material can be pigmented with various colors (column 15, lines 14-26). It would have been obvious to one skilled in the art to add such a binder material to the fabrics of Greenway or Welch et al. in order to make nonwoven fabrics with increased abrasiveness for improved durability. With regard to claims 6 and 7, McDonell et al. teach the binder can be combined with the nonwoven fabric by any coating method known in the art (column 15, lines 4-6). Applying coating material to nonwoven fabrics in scatter-form or pattern-form is well known in the art.

12. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenway in view of Bunting, Jr. et al. (U.S. Patent No. 3,493,462).

The various layer embodiments of Greenway could be construed to contain a third intermediate layer of 100% synthetic fibers, since Greenway teaches the fabric could be multi-layered and discloses the use of a layer that is 100% synthetic. However, Bunting, Jr. et al. teach a hydroentangled nonwoven composite possessing three layers (column 30, lines 20-75). Two outer cellulosic layers made of rayon and

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kraft wood pulp sandwich a center layer of synthetic polyethylene terephthalate. The inclusion of a PET intermediate layer, while suggested in Greenway, is fully disclosed in Bunting, Jr. et al. It would have been obvious to one skilled in the art to incorporate a central PET layer into the fabric material of Greenway in order to produce a fabric with additional strength.

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greenway in view of Bunting, Jr. et al. as applied to claim 11 above, and further in view of McDonnell et al.

Greenway in view of Bunting, Jr. et al. does not teach the use of an abrasive binder coating in the nonwoven fabric. McDonnell et al. teach that nonwoven fabric material can be made more abrasive with a binder precursor, and the binder material can be pigmented with various colors (column 15, lines 14-26). It would have been obvious to one skilled in the art to add such a binder material to the fabric of Greenway in view of Bunting, Jr. et al. in order to make nonwoven fabrics with increased abrasiveness for improved durability.

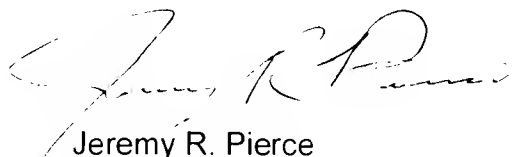
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (703) 605-4243. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

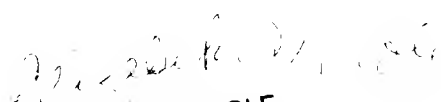
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Jeremy R. Pierce
Examiner
Art Unit 1771
April 25, 2002


ELIZABETH M. COLE
PRIMARY EXAMINER